Comparisons of Job Characteristics

Focus Occupation: Operations Research Analysts (15-2031)
Associated Occupation: Mathematical Technicians (15-2091)

8.4

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

| << | Focus occupation element is much lower |
|----|--|
| < | Focus occupation element is lower |
| 0 | Focus occupation element is at a similar level |
| > | Focus occupation element is at a higher level |
| >> | Focus occupation element is at a much higher level |

Current knowledge level may be sufficient

Knowledge Similarity of Focus Occupation to Associated Occupation: 91 Focus Occupation: Operations Research Analysts (15-2031) Associated Occupation: Mathematical Technicians (15-2091) Average Associated **Focus Associated Occupation's** Rating, All Occupation's Occupation's **Evaluation of Focus Occupation Key Knowledge Elements** Occupations Rating Rating Mathematics 9.2 22.0 Current knowledge level is likely sufficient 24.4

The maximum possible rating is 25.

Computers and Electronics

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

14.4

Skills

Similarity of Focus Occupation to Associated Occupation: 70

15.0

Focus Occupation: Operations Research Analysts (15-2031) Associated Occupation: Mathematical Technicians (15-2091)

| Accordated Cocapation: mathematical recimination (10 2001) | | | | | |
|--|---------------------------------------|--------------------------------------|---------------------------------|--------------------------------|--|
| Associated Occupation's Key Skills Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation | |
| Mathematics | 6.2 | 20.5 | 16.9 | << | Extensive development of skills in this area may be required |
| Critical Thinking | 10.8 | 18.0 | 15.2 | < | A higher skill level may be required |
| Reading Comprehension | 10.7 | 16.4 | 14.6 | < | A higher skill level may be required |
| Active Listening | 11.0 | 15.8 | 12.6 | << | Extensive development of skills in this area may be required |
| Judgment and Decision Making | 9.4 | 15.0 | 14.2 | 0 | Current skill level may be sufficient |
| Active Learning | 8.7 | 14.3 | 13.6 | 0 | Current skill level may be sufficient |
| Equipment Selection | 3.3 | 13.6 | 1.4 | << | Extensive development of skills in this area may be required |
| Complex Problem Solving | 9.1 | 13.3 | 15.4 | > | Skill level is likely sufficient |
| Science | 4.5 | 13.0 | 11.3 | < | A higher skill level may be required |
| Operations Analysis | 5.0 | 10.1 | 13.5 | >> | Skill level is likely more than sufficient |
| Programming | 2.2 | 9.5 | 5.8 | << | Extensive development of skills in this area may be required |

| Technology Design | 2.6 | 5.1 | 2.5 | << | Extensive development of skills in this |
|-------------------|-----|-----|-----|----|---|
| <u> </u> | | | | | area may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 77

Focus Occupation: Operations Research Analysts (15-2031) Associated Occupation: Mathematical Technicians (15-2091)

| Associated Occupation's Key Abilities Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating | Evaluation of Focus Occupation | |
|---|---------------------------------------|--------------------------------------|---------------------------------|--------------------------------|--|
| Mathematical Reasoning | 6.3 | 23.0 | 17.3 | << | Extensive improvement in abilities may be required |
| Number Facility | 6.3 | 21.8 | 15.1 | << | Extensive improvement in abilities may be required |
| Deductive Reasoning | 10.6 | 15.5 | 15.0 | 0 | Current ability level may be sufficient |
| Oral Expression | 12.4 | 12.4 | 13.9 | > | Current ability level is likely sufficient |
| Oral Comprehension | 12.5 | 12.0 | 13.9 | > | Current ability level is likely sufficient |
| Problem Sensitivity | 11.1 | 9.1 | 12.8 | >> | Current ability level is likely more than sufficient |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 96

Focus Occupation: Operations Research Analysts (15-2031) Associated Occupation: Mathematical Technicians (15-2091)

| Work Activities | Exclusivity of Activity |
|---|-------------------------|
| Analyze scientific research data or investigative findings | 27 |
| Collect scientific or technical data | 30 |
| Communicate technical information | 4 |
| Compile numerical or statistical data | 38 |
| Create mathematical or statistical diagrams or charts | 43 |
| Develop or maintain databases | 30 |
| Develop tables depicting data | 33 |
| Explain complex mathematical information | 30 |
| Prepare reports | 8 |
| Resolve engineering or science problems | 46 |
| Use computers to enter, access or retrieve data | 3 |
| Use interpersonal communication techniques | 10 |
| Use knowledge of investigation techniques | 16 |
| Use mathematical or statistical methods to identify or analyze problems | 30 |
| Use quantitative research methods | 35 |

| Use relational database software | 26 |
|-------------------------------------|----|
| Use scientific research methodology | 21 |
| Use spreadsheet software | 18 |

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: n/a

Focus Occupation: Operations Research Analysts (15-2031) Associated Occupation: Mathematical Technicians (15-2091)

Tools and Technologies Exclusivity

Tools and technology data is unavailable for one or both occupations.

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.